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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,653

01/22/2004

Leonard Schlessinger

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EXAMINER

SIMS, JASON M

ART UNIT	PAPER NUMBER
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1631

MAIL DATE	DELIVERY MODE
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08/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/763,653	Applicant(s) SCHLESSINGER ET AL.	
	Examiner Jason M. Sims	Art Unit 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 31-40, 52 and 61-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 31-40, 52, and 61-75 is/are rejected.
- 7) ☒ Claim(s) 71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's arguments, filed 6/4/2007, have been fully considered but they are not deemed to be persuasive. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Applicants have amended their claims, filed 6/4/2007, and therefore rejections newly made in the instant office action have been necessitated by amendment.

Applicant has newly added claims 61-75 in the response filed 6/4/2007, which have been entered.

Claims 1-10, 31-40, 52, and 61-75 are the current claims hereby under examination.

Claim Objections

Claim 71 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered. See MPEP § 608.01(n).

Accordingly, the claim 71 has not been further treated on the merits.

Claim Rejections - 35 USC § 101

Response to applicant's arguments:

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Applicant's arguments filed 6/4/2007 have been fully considered but they are not persuasive.

Applicant argues that the amendment to claim 1 to include "saving at least one value based on the virtual patient's FPG at time t in a computer-readable medium" causes claim to now read on statutory subject matter.

Applicant's arguments are not found persuasive because the amendment reads on saving at least one value based on the virtual patient's FPG, which does not necessitate that this value is a result from the claimed method steps, but merely states saving a **value**, which is based on FPG, which could possibly include many different values and/or parameters. Additionally, the value, which is saved in a computer-readable medium, is not necessarily a statutory medium as a computer-readable medium may read on carrier waves, a non-statutory medium, which the specification has not limited said medium as excluding said non-statutory medium. Therefore, the rejection as been maintained as reiterated below and to include newly added claims.

Reiterated Rejection of claims under 35 USC 101, but to include newly added claims:

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10, 31-40, 52 and 61-75 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Under the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (published in the O.G. notice (1300 OG 142) on 11/22/2005) a method that does not result in a physical transformation of matter MAY be statutory where it recites a concrete, tangible and useful result; i.e. a practical application.

Claims 1-10, 31-40, 52 and 61-75 are drawn to a process, a program and apparatus that embody the process. A statutory process must include a step of a physical transformation, or produce a useful, concrete, and tangible result (State Street Bank & Trust Co. v. Signature Financial Group Inc. CAFC 47 USPQ2d 1596 (1998), AT&T Corp. v. Excel Communications Inc. (CAFC 50 USPQ2d 1447 (1999)). In the instant claims, there is no step of physical transformation, thus the Examiner must determine if the instant claims include a useful, concrete, and tangible result.

As noted in State Street Bank & Trust Co. v. Signature Financial Group Inc. CAFC 47 USPQ2d 1596 (1998) below, the statutory category of the claimed subject matter is not relevant to a determination of whether the claimed subject matter produces a useful, concrete, and tangible result:

The question of whether a claim encompasses statutory subject matter should not focus on *which* of the four categories of subject matter a claim is directed to 9-- process, machine, manufacture, or composition of matter--but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See *In re Warmerdam* , 33 F.3d 1354, 1359, 31 USPQ2d

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1754, 1757-58 (Fed. Cir. 1994). For purpose of our analysis, as noted above, claim 1 is directed to a machine programmed with the Hub and Spoke software and admittedly produces a "useful, concrete, and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. This renders it statutory subject matter, even if the useful result is expressed in numbers, such as price, profit, percentage, cost, or loss.

In determining if the claimed subject matter produces a useful, concrete, and tangible result, the Examiner must determine each standard individually. For a claim to be "useful," the claim must produce a result that is specific, and substantial. For a claim to be "concrete," the process must have a result that is reproducible. For a claim to be "tangible," the process must produce a real world result. Furthermore, the claim must be limited only to statutory embodiments.

Claims 1-10 do not produce a tangible result. A tangible result requires that the claim must set forth a practical application to produce a real-world result. This rejection could be overcome by amendment of the claims to recite that a result of the method is outputted to a display or a memory or another computer on a network, or outputting the result to a user, or by including a physical transformation, if such wording is supported by the instant specification.

Claims 31-40, 52, and 61-75 are drawn to a program and apparatus that embodies a non-statutory method, which is also considered to be non-statutory itself. Therefore, claims 31-40, 52, and 61-75 are also rejected under 35 U.S.C. 101 as being drawn to non-statutory subject matter for the reasons stated above.

Claim Rejections - 35 USC § 112

Response to applicant's arguments:

Applicant's arguments filed 6/4/2007 have been fully considered with respect to the rejection of claims 3, 5, 9, 33, 35, and 39 for containing the undefined variables "a," "b," "c," and "d" but they are not persuasive.

Applicant argues that the amendment filed 6/4/2007 to define said parameters as parameters set to reflect a population that is represented by the virtual patient clearly establishes a definition.

Applicant's arguments are not found persuasive as it remains unclear as to what exactly is meant by the wording "reflects a population" and how these values are determined or influenced as stated below in the instant office action.

Applicant's arguments, filed 6/4/2007, with respect to the rejection of claims 3, 4, 7-10, 33, 34, and 37-40 for not defining the variable " DF_2 " have been fully considered and are persuasive because of applicant's amendment. Therefore, the rejection of claims 3, 4, 33, and 34 for not defining the variable " DF_2 " has been withdrawn.

Applicant's arguments, filed 6/4/2007, with respect to the rejection of claims 10 and 40 for not defining the variable " DF_1 ," "I," and "H" have been fully considered and are persuasive because of applicant's amendment. Therefore, the rejection of claims 10 and 40 for not defining the variable " DF_1 ," "I," and "H" has been withdrawn.

The following rejections are either reiterated or being newly applied:

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-10, 31-40, 52 and 61-75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 31, 61, 63, and 74 contain the word "based," which has been deemed as vague and indefinite. It is unclear as to what exactly is meant by the word "based" or what the exact relationship is between "at least one value" and "the virtual patient's FPG at time t" wherein the "at least one value" is "based" on "the virtual patient's FPG at time t." Clearer claim wording is required.

Claims 3-5, 8, 9, 33, 38, 39, 40, 66, 72-73 contain the wording "the parameters a, b, c, and d," "the parameters a, b, c, d, and e," or "the parameters a and b," respectively, are set to reflect a population that is represented by the virtual patient," which has been deemed as vague and indefinite. It is unclear as to what exactly is meant by the wording "reflect a population" and how the values are determined. Clearer claim wording is required.

Claim 64 contains the variables "a," "b," "c," and "d," which have not been defined as to what they mean and how the values are determined and are therefore considered to be vague and indefinite as to what effect they have on the equations they are a part of. Clearer claim wording is required.

Claims 64 and 75 recite the limitation "the equation representing E" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

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Claims 2, 6-7, 10, 31-32, 34-37, 52, 61-62, 65, and 67-71 are being rejected as dependent from a rejected claim.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Sims, whose telephone number is (571)-272-7540.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ram Shukla can be reached via telephone (571)-272-0735.

Papers related to this application may be submitted to Technical Center 1600 by facsimile transmission. Papers should be faxed to Technical Center 1600 via the Central PTO Fax Center. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61

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(November 16, 1993), and 1157 OG 94 (December 28, 1993) (See 37 CFR § 1.6(d)).
The Central PTO Fax Center number is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

// Jason Sims //

LORI A. CLOW, PH.D.
PRIMARY EXAMINER

Lori A. Clow
8/20/07